

## Fiori Development with VSCode and NodeJS



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Active Contributor

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Hi,

In this post, I would like to share with you, how to develop and run SAP Fiori apps on your local computer with Visual Studio Code and NodeJS. In that way, you can explore, learn, develop SAP UI5 and Fiori Elements on your computer.

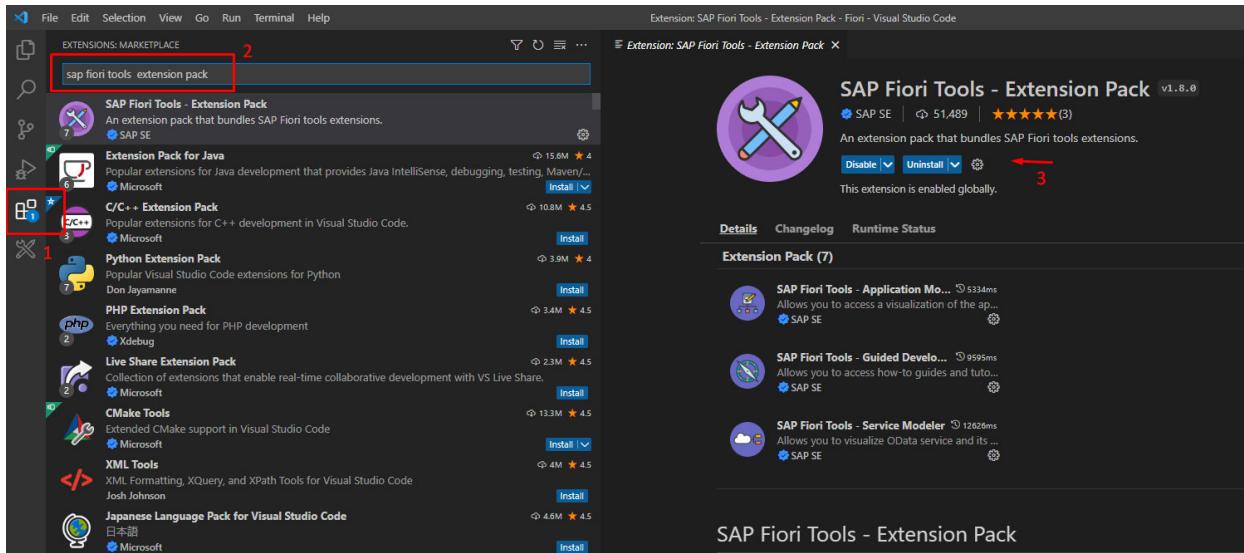
[Download VSCode - link.](#)

[Download NodeJS - link.](#)

Install VSCode and NodeJS.

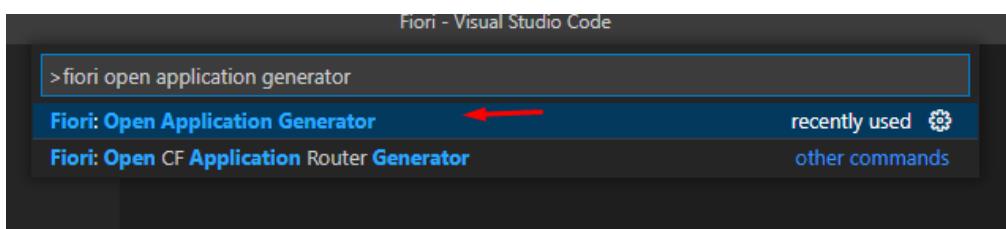
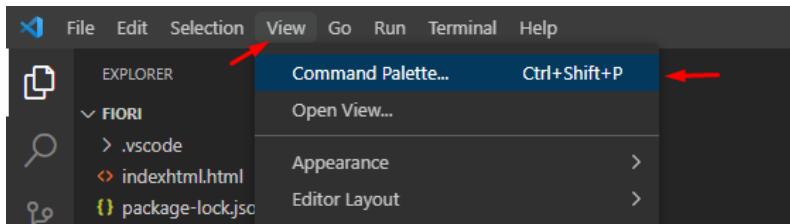
Save path of NodeJS to Environment Variables -> System Variables -> Path. - Restart your computer.

Open VSCode and go to extensions and install "Sap Fiori Tools Extension Pack". This will install all required extensions.

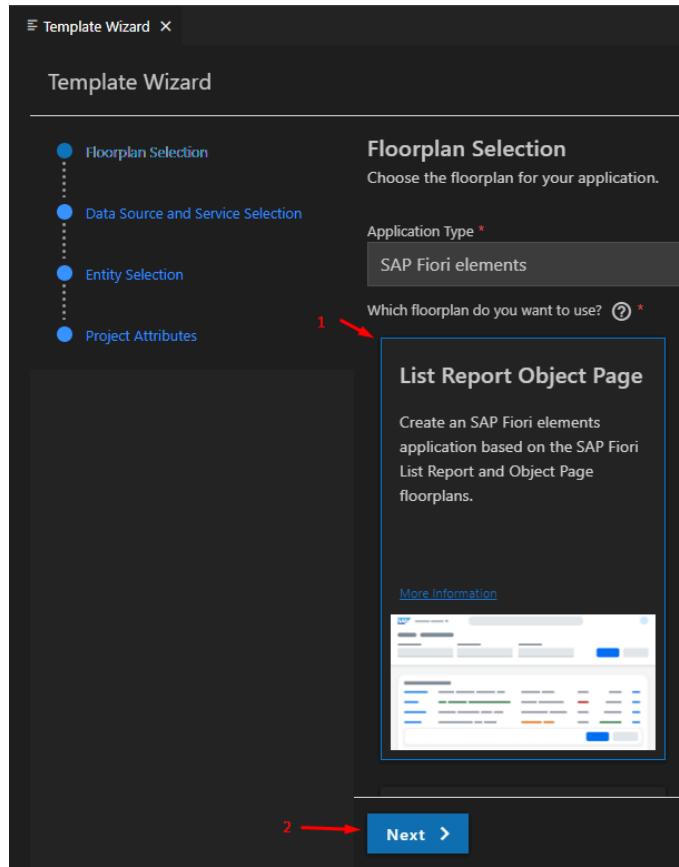


## Install SAP Fiori Tools - Extension Pack

To create a new project, open command palette and run > "fiori open application generator"

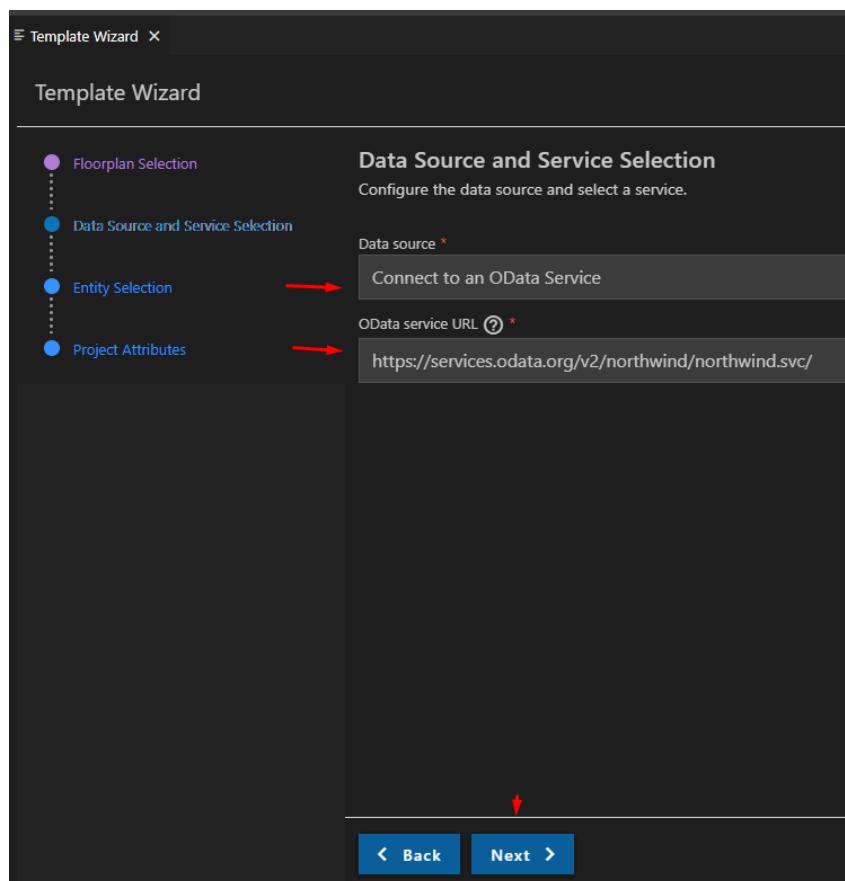


Choose template from template wizard. In this example application type is SAP Fiori Elements, but instead you can choose SAP UI5 freestyle as type and you can have a classic SAP UI5 Fiori app.

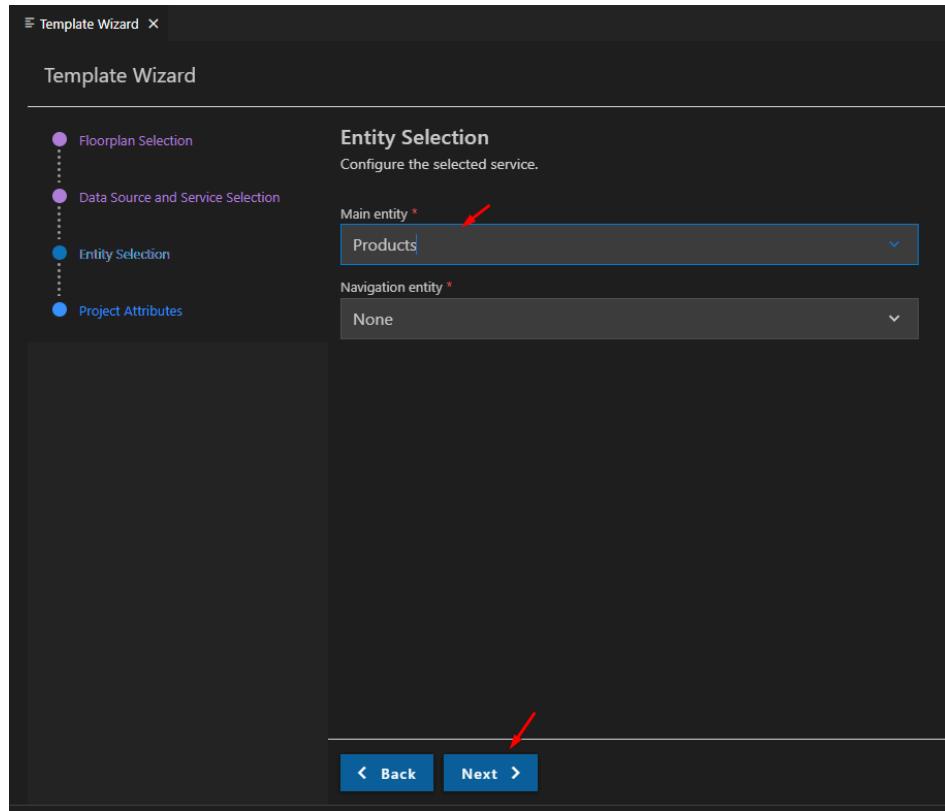


Choose data source - We will be using odata northwind in this example.

Url : <https://services.odata.org/v2/northwind/northwind.svc/>



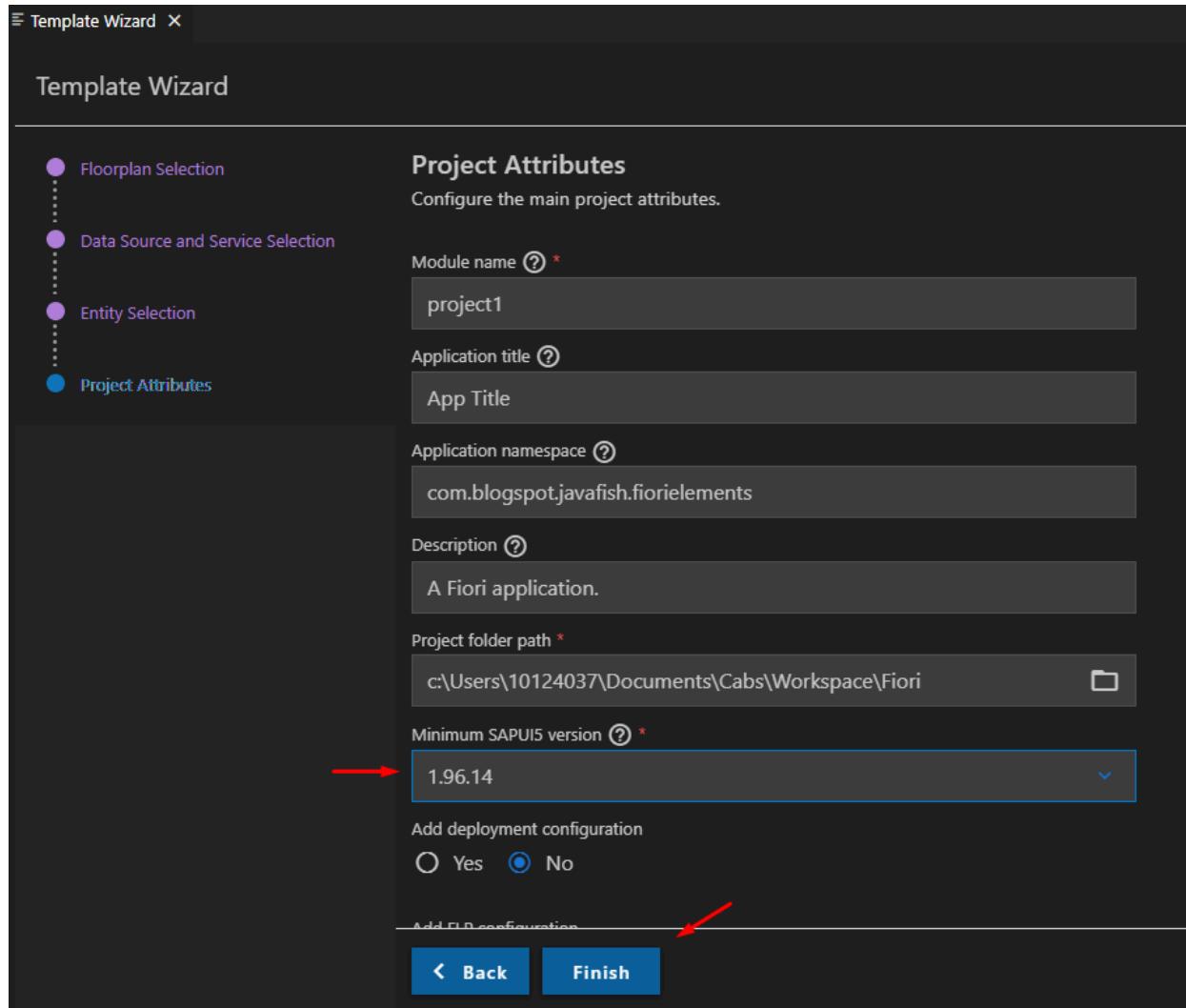
## Select Main Entity



Provide project details

Note: Version of SAP UI is important. Some versions does not load!

**Pay Attention:** Module name is project1, therefore a new folder will be created under workspace folder with project1 name. We need to run npm commands in this folder!



Application Info – project1 - Fiori - Visual Studio Code

Application Info – project1 X

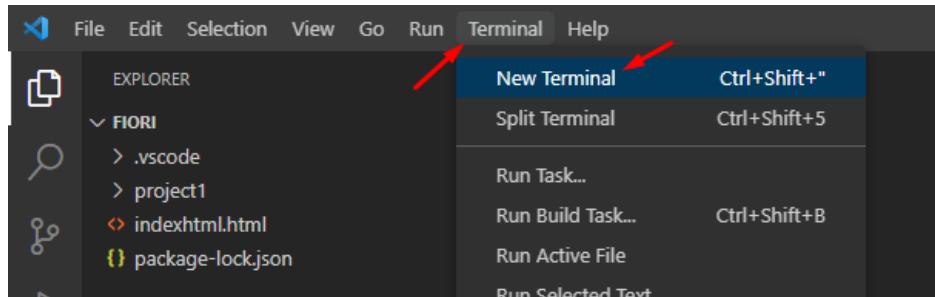
## Application Information

[Project Details](#)

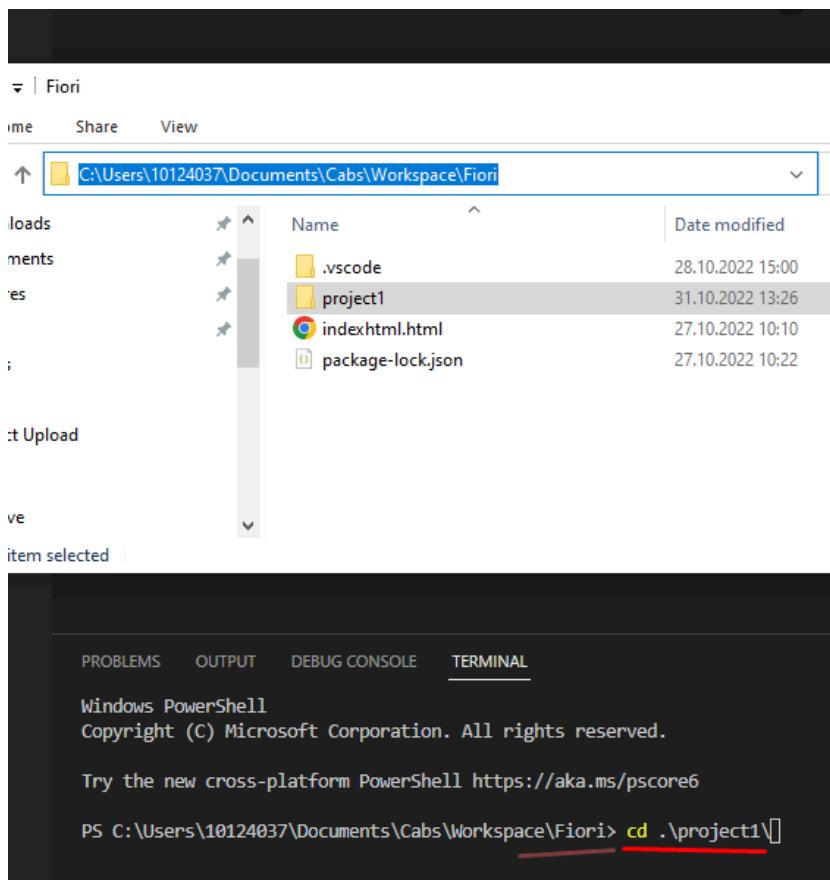
Module Name	...ot.javafish.fiorielements.project1	Type	SAP Fiori elements	Pages
Application Title	App Title	SAPUI5 Version	1.96.14	<a href="#">ListReport</a> <i>Products</i>
Namespace	...m.blogspot.javafish.fiorielements	Project Type	EDMX Backend	<a href="#">ObjectPage</a> <i>Products</i>
Location	...s\Cabs\Workspace\Fiori\project1	Main Service	<a href="#">northwind.svc (V2.0)</a>	
Files	<a href="#">package.json</a>   <a href="#">manifest.json</a>			

Project1 is created and info is above.

Now open a terminal screen.



We need to be in project folder to run npm commands. we run "cd project1" to change folder in terminal screen.



We are now in project folder and we need to run "npm update" command.

```

PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\10124037\Documents\Cabs\Workspace\Fiori> cd .\project1\
PS C:\Users\10124037\Documents\Cabs\Workspace\Fiori\project1> npm update
npm WARN EBADENGINE Unsupported engine {
npm WARN EBADENGINE   package: '@sap-ux/vocabularies-types@0.5.7',
npm WARN EBADENGINE   required: {
npm WARN EBADENGINE     pnpm: '>=6.26.1',
npm WARN EBADENGINE     node: '>=12.22.5 < 13.0.0 || >= 14.16.0 < 15.0.0 || >=16.1.0 < 17.0.0'
npm WARN EBADENGINE   },
npm WARN EBADENGINE   current: { node: 'v18.12.0', npm: '8.19.2' }
npm WARN EBADENGINE }

up to date, audited 846 packages in 21s

20 packages are looking for funding
  run `npm fund` for details

5 moderate severity vulnerabilities

To address all issues, run:
  npm audit fix

Run `npm audit` for details.
PS C:\Users\10124037\Documents\Cabs\Workspace\Fiori\project1>

```

Project is ready to run.

We need to run "npm start" to start our server. A new browser page will open.

```

PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL
PS C:\Users\10124037\Documents\Cabs\Workspace\Fiori> cd .\project1\
PS C:\Users\10124037\Documents\Cabs\Workspace\Fiori\project1> npm update
npm WARN EBADENGINE Unsupported engine {
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npm WARN EBADENGINE   required: {
npm WARN EBADENGINE     pnpm: '>=6.26.1',
npm WARN EBADENGINE     node: '>=12.22.5 < 13.0.0 || >= 14.16.0 < 15.0.0 || >=16.1.0 < 17.0.0'
npm WARN EBADENGINE   },
npm WARN EBADENGINE   current: { node: 'v18.12.0', npm: '8.19.2' }
npm WARN EBADENGINE }

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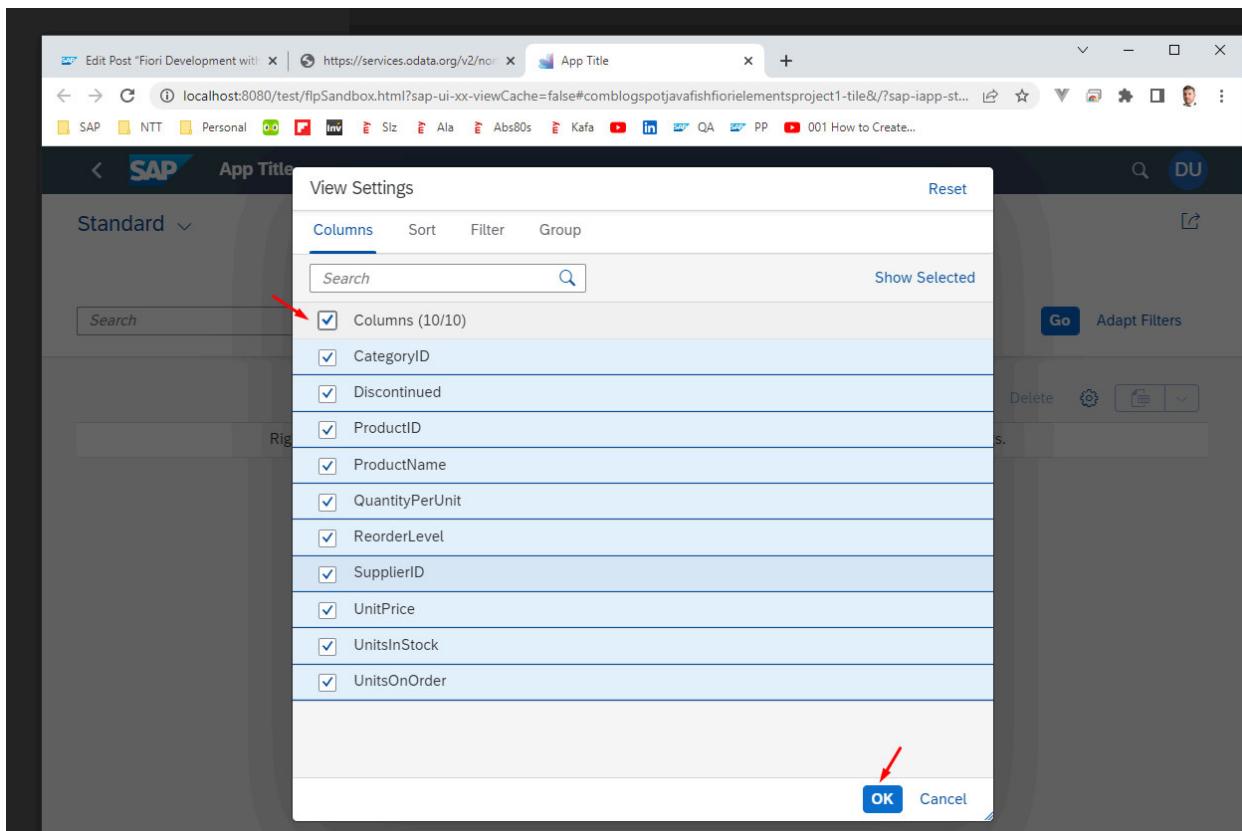
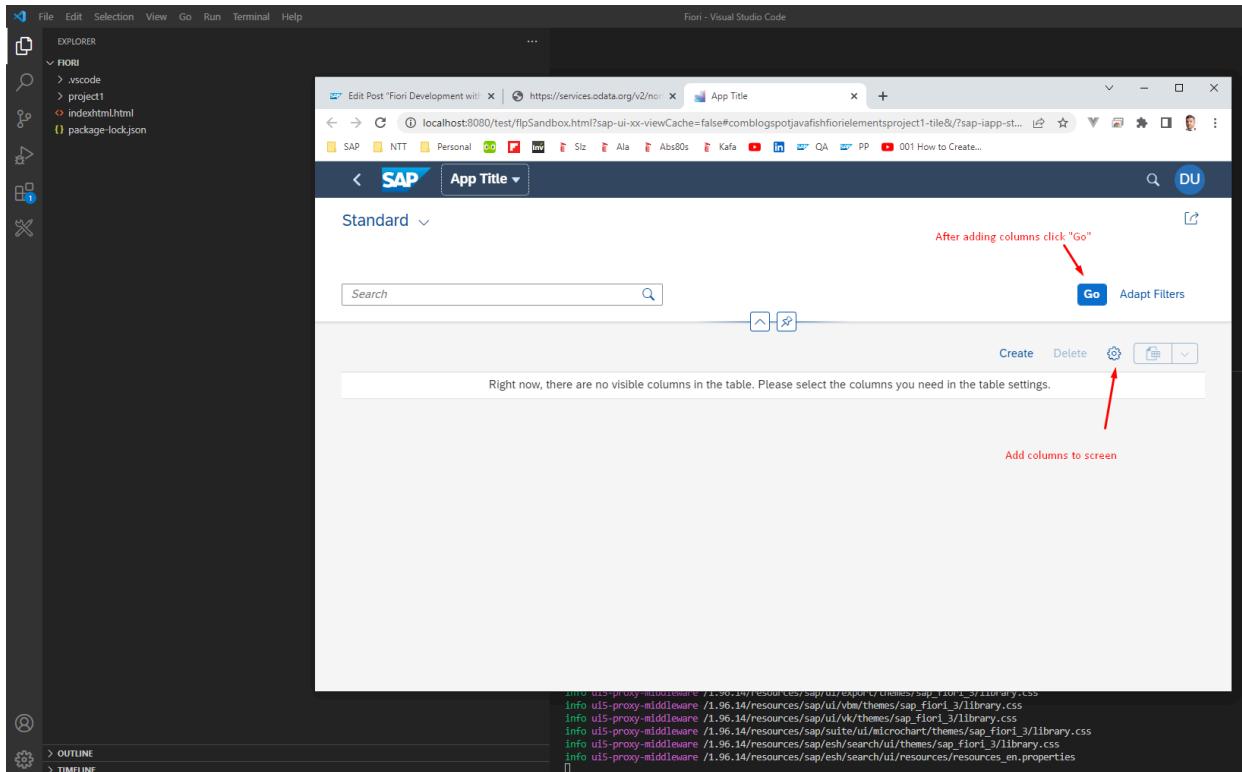
5 moderate severity vulnerabilities

To address all issues, run:
  npm audit fix

Run `npm audit` for details.
PS C:\Users\10124037\Documents\Cabs\Workspace\Fiori\project1> npm start
> project1@0.0.1 start
> fiori run --open "test/flpSandbox.html?sap-ui-xx-viewCache=false#com.blogspotjavafishfiorielementsproject1-tile"

```

Now go to new browser page and change columns display settings and click "Go" to load data.



The screenshot shows a Fiori application interface. At the top, there's a navigation bar with links like SAP, NTT, Personal, etc. Below it is a header bar with the SAP logo and the title 'App Title'. A search bar is present with a magnifying glass icon. To the right of the search bar is a blue 'Go' button with a red arrow pointing to it. Below the search bar is a toolbar with buttons for Create, Delete, Show Details, and other actions. The main area is a table listing products from the Northwind database. The columns include CategoryID, Discontinued, ProductID, ProductName, QuantityPerUnit, ReorderLevel, SupplierID, and UnitPrice. The table lists items such as Chai, Chang, Aniseed Syrup, Chef Anton's Cajun Seasoning, Chef Anton's Gumbo Mix, Grandma's Boysenberry Spread, Uncle Bob's Organic Dried Pears, Northwoods Cranberry Sauce, and Michelin's Milk.

That is all. Now you have a working Fiori elements example with oData service. You can explore and enhance that app as you wish. If you want, you can create a new project for SAP UI5. Steps are exactly same, just choose SAPUI5 freestyle for application type.

The screenshot shows the SAP Application Information page. It displays project details for a project named 'com.tst.tst.app2.project2'. The application title is 'App Title'. The namespace is 'com.tst.tst.app2'. The location is '...s\Cabs\Workspace\Fiori\project2'. The files listed are 'package.json' and 'manifest.json'. The 'Type' field is highlighted with a red box and is set to 'SAPUI5 freestyle'. Other fields shown include 'SAPUI5 Version' (1.96.14), 'Project Type' (EDMX Backend), and 'Main Service' (northwind.svc\_(V2.0)).

## SAP UI5 Project Info

Finally, a few links on topic,

- a link for fiori elements with code and layout samples.
- and this blog post by Sai was really helpful on VSCode setup and sample app.
- Another blog on Fiori and VsCode development. Sap Developers link.
- A blog post on extending SAP Fiori elements app.
- Fiori Demo apps with tutorial by SAP(on step 25 of walkthrough you may need that blog and that too).
- Fiori Elements Tutorials
- Developing and Extending SAP Fiori Elements Apps

## Deploying to Repo

- How to deploy UI5 application to SAP Abap repository by pandya123.
- Download and Deploy UI5 Code by using SE38:/UI5/UI5 REPOSITORY LOAD
- Another blog post by Sai Nithesh.
- Another Deploy Via SE38
- Deploying to Git Repo

## Tools

- A useful VSCode extension for UI5 development.
- Application Wizard Extension for VS CODE
- SAP UI5 TOOLS to connect SAP Server (define sap systems ).

Useful vscode command palette commands.

Fiori: Preview Application → **npm run start**  
Fiori: Open Application Generator → **Fiori elements or free style app generator**  
Fiori: Add Deployment Configuration → **Deployment settings, requires ui5 tools system**  
Fiori: Deploy Application → **Deploy with given settings**

Hopefully that is useful for you and helps you to gain new skills without need for BTP trial accounts.

Feel free to add your samples and links to comments.

Thanks for reading.

Tags:

[Fiori](#) [NodeJS](#) [sap ui 5](#) [vscode](#)

## Comments



andersoneliel Discoverer

2024 Jun 03  
7:35 PM

Excellent tutorial. No fluff and straight to the point. Thank you very much, it helped me a lot.